

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Claims 1-4 (Canceled).

Claim 5 (Currently Amended): The distance relay apparatus according to claim ~~[[2]]~~ 27, further comprising a second directional relay element having a setting value that is larger than that of the first directional relay element, and

wherein the logic element outputs the relay signal in one of a case where both the second directional relay element and the fault detecting relay element are operated and a case where both the first directional relay element and the zone-1 distance relay element are operated.

Claim 6 (Currently Amended): The distance relay apparatus according to claim ~~[[3]]~~ 25, further comprising a second directional relay element having a setting value that is larger than that of the first directional relay element, and

wherein the logic element outputs the relay signal in one of a case where both the second directional relay element and the fault detecting relay element are operated and a case where both the first directional relay element and the zone-1 distance relay element are operated.

Claim 7 (Canceled).

Claim 8 (Currently Amended): The distance relay apparatus according to claim [[2]] 27, wherein the fault detecting relay element includes a mho relay having a setting value that is smaller than a distance setting value of the zone-1 distance relay element.

Claim 9 (Currently Amended): The distance relay apparatus according to claim [[3]] 28, wherein the fault detecting relay element includes a mho relay having a setting value that is smaller than a distance setting value of the zone-1 distance relay element.

Claims 10-11 (Canceled).

Claim 12 (Currently Amended): The distance relay apparatus according to claim [[2]] 27, wherein the fault detecting relay element includes a reactance relay having a setting value that is smaller than a distance setting value of the zone-1 distance relay element.

Claim 13 (Currently Amended): The distance relay apparatus according to claim [[3]] 28, wherein the fault detecting relay element includes a reactance relay having a setting value that is smaller than a distance setting value of the zone-1 distance relay element.

Claims 14-15 (Canceled).

Claim 16 (Currently Amended): The distance relay apparatus according to claim [[2]] 27, wherein the fault detecting relay element includes an undervoltage relay which detects that a voltage becomes not higher than a predetermined level.

Claim 17 (Currently Amended): The distance relay apparatus according to claim [[3]] 28, wherein the fault detecting relay element includes an undervoltage relay which detects that a voltage becomes not higher than a predetermined level.

Claims 18-19 (Canceled).

Claim 20 (Currently Amended): The distance relay apparatus according to claim [[2]] 27, wherein the fault detecting relay element includes an overcurrent relay which detects that a current becomes not lower than a predetermined level.

Claim 21 (Currently Amended): The distance relay apparatus according to claim [[3]] 28, wherein the fault detecting relay element includes an overcurrent relay which detects that a current becomes not lower than a predetermined level.

Claims 22-23 (Canceled).

Claim 24 (Currently Amended): The distance relay apparatus according to claim [[2]] 27, wherein the fault detecting relay element includes an impedance relay which obtains an impedance from the voltage and the current by computation and detects that the impedance becomes not higher than a predetermined level.

Claim 25 (Currently Amended): The distance relay apparatus according to claim [[3]] 28, wherein the fault detecting relay element includes an impedance relay which obtains an

impedance from the voltage and the current by computation and detects that the impedance becomes not higher than a predetermined level.

Claim 26 (Canceled).

Claim 27 (New): A distance relay apparatus comprising:

a sampling element which samples an amount of electricity of a voltage and a current, which are received from an object to be protected, at regular intervals;

an A/D converting element which converts the amount of electricity sampled by the sampling element into digital data;

a first digital filter which filters the digital data obtained by the A/D converting element;

a second digital filter which filters the digital data obtained by the A/D converting element, for a time period that is shorter than that required for filtering of the first digital filter;

a first directional relay element which receives the digital data filtered by the first digital filter to perform computation to detect a fault, which occurs in the forward direction from an installing point of the relay apparatus, based on a computing equation;

a zone-1 distance relay element which receives the digital data filtered by the first digital filter to perform computation to detect a fault within a predetermined zone viewed from the installing point of the relay apparatus, based on a computing equation;

a fault detecting relay element which receives the digital data filtered by the second digital filter to perform computation to detect a fault within a zone that is narrower than the

predetermined zone in terms of data time length which is shorter than that used for the computation of the zone-1 distance relay element; and

a logic element which outputs a relay signal in accordance with a detecting operation of at least one of the zone-1 distance relay element and the fault detecting relay element and a detecting operation of the first directional relay element.

Claim 28 (New): A distance relay apparatus comprising:

a sampling element which samples an amount of electricity of a voltage and a current, which are received from an object to be protected, at regular intervals;

an A/D converting element which converts the amount of electricity sampled by the sampling element into digital data;

digital filters which filter the digital data obtained by the A/D converting element;

a first directional relay element which receives the digital data filtered by one of the digital filters to perform computation to detect a fault, which occurs in the forward direction from an installing point of the relay apparatus, based on a computing equation;

a zone-1 distance relay element which receives the digital data filtered by the one of the digital filters to perform computation to detect a fault within a predetermined zone viewed from the installing point of the relay apparatus, based on a computing equation;

a fault detecting relay element which receives the digital data filtered by the other of the digital filters to perform computation to detect a fault within a zone that is narrower than the predetermined zone in terms of data time length which is shorter than that used for the computation of the first directional relay element and the zone-1 distance relay element; and

a logic element which outputs a relay signal in accordance with a detecting operation of at least one of the zone-1 distance relay element and the fault detecting relay element and a detecting operation of the first directional relay element.